UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE



Region - Five

REPLY TO: 5230 Evaluation

mike Irage

LAT 40,21868 LOW -121,4856 March 20, 1978

SUBJECT: Insect Evaluation - DR 3/78

70: Forest Supervisor, Lassen N.F. 50 Ap Miles



On March 15, 1978, John Pierce inspected the tree mortality occurring in the Deer Creek drainage of the Almanor District as requested by an earlier phone conversation from Ken Estes. Tony Sanchez, John Redd, Mike Ready and Mick Petigrew accompanied Pierce on the inspection.

The area of concern lies in the lower elevation of the western portion of the forest. Numerous groups of dying ponderosa and sugar pine are evident from nearly every vantage point. Inspection of individual fading trees showed that most of the sugar pines are currently top-killed, evidently by ips or drought damage. The faded ponderosa pine are about evenly divided between severely top-killed trees and totally killed trees now occupied by dense overwintering broods of the western pine beetle. Petigrew reported observing elsewhere a pattern of activity of tops initially dying, followed by later colonization of lower boles by Dendroctonus beetles.

The probable course of the outbreak will be to continue, increase and spread during 1978, even though the severe drought period has passed and woodpeckers are feeding extensively on the western pine beetle larvae. The trees injured by top-kill, drought, and severe dwarf mistletoe infections will likely provide an easily available food source for emerging beetles that will encourage continuation of the bark beetle build up in the area.

The western pine beetle larvae now in the trees should mature and emerge as beetles about May and June. It is reasonable to anticipate that some of the beetles, perhaps a considerable portion of the beetles, will attack and be absorbed into the abundant top-killed trees in the area. The mountain pine beetle, which is common in sugar pine, will probably follow this pattern also a little later in the summer. Under these probable circumstances, salvage logging could considerably reduce the eventual severity of the outbreak. Infested trees and damaged and weakened trees removed before the beetles emerge will reduce both the beetle population and the easily available food in the area. Salvage continued beyond spring beetle emergence could continue to remove beetles if they attack visibly damaged trees, as expected, and become absorbed in these trees until the next emergence period expected about mid-August. The effectiveness of

salvage logging in suppressing beetles could be increased by searching for additional infested trees during the falling and yarding activity if knowledgeable "bug tree spotters" were sufficiently available.

WILFRED L. FREEMAN, JR.

WILFRED L. FREEMAN, Jr., Director Forest Insect and Disease Management

Enclosure